

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

What is claimed is:

1. A semiconductor package, comprising:

an electrically conductive member having a spherical terminal;

a semiconductor chip which is electrically connected to said electrically

5 conductive members; and

a sealing member for sealing said electrically conductive members and said semiconductor chip therein;

wherein a part of said spherical terminal is exposed from said sealing member, and said spherical terminal is electrically connected to said electrically
10 conductive member via a protrusion formed on said electrically conductive member.

2. A semiconductor package according to claim 1, wherein the electrically conductive members are leads of a lead frame.

15 3. A semiconductor package according to claim 2, wherein the protrusion has an extremity forming an acute angle.

4. A semiconductor package according to claim 3, wherein the protrusion
20 has a height in size equivalent to about 10 to 50% of the diameter of the spherical

terminal.

5 5. A semiconductor package according to claim 4, wherein the protrusion is
caused to pierce the spherical terminal when a press-down force acts between the
spherical terminal and the leads.

6. A semiconductor package according to claim 2, wherein the protrusion
has an extremity provided with a rough face.

10 7. A semiconductor package according to claim 6, wherein the protrusion is
made up of a plated face.

8. A semiconductor package according to claim 7, wherein the protrusion is
connected to the spherical terminal when a press-down force acts between the
15 spherical terminal and the leads.

9. A method of fabricating a semiconductor package comprising:
a step of preparing a lead frame provided with a protrusion;
a step of preparing a first molding die member having a cavity;
20 a step of preparing a second molding die member to be engaged with the

first molding die member;

a step of disposing a spherical terminal in the cavity;

a step of holding the lead frame between the first and second molding die members such that the protrusion is disposed opposite to the spherical terminal;

5 and

a step of injecting a molding composition between the first and second molding die members.

10. A method of fabricating a semiconductor package according to claim 9,
10 wherein the spherical terminal comes to be in intimate contact with the sidewall of the cavity in the step of holding the lead frame between the first and second molding die members.

11. A method of fabricating a semiconductor package according to claim 9,
15 wherein the protrusion has an extremity forming an acute angle, and is caused to pierce the spherical terminal in the step of holding the lead frame between the first and second molding die members.

12. A method of fabricating a semiconductor package according to claim 9,
20 wherein the protrusion has a rough face, and the protrusion is bonded with the

spherical terminal via the rough face in the step of holding the lead frame between the first and second molding die members.

13. A method of fabricating a semiconductor package according to claim 9,
5 further comprising a step of sucking in the spherical terminal via a through hole defined in the bottom of the cavity of the first molding die member.

14. A method of forming a semiconductor package which comprises the steps of:

10 preparing a lead frame having a spherical terminal;

preparing a first mold die having a cavity with a through hole in the bottom thereof;

preparing a second mold die for matching with said first molding die;

placing said lead frame between said first and second mold dies, wherein
15 said spherical terminal of said lead frame is placed in said cavity;

absorbing air existing between said spherical terminal and said bottom of said cavity via said through hole for contacting said spherical terminal with the inner side of said cavity; and

injecting a molding composition between said first and second mold dies.

20

15. A method of forming a semiconductor package which comprises the steps of:

preparing a lead frame having a spherical terminal;

preparing a first mold die having a cavity with a through hole in the bottom thereof;

preparing a second mold die for matching with said first molding die;

placing said lead frame between said first and second mold dies, wherein said spherical terminal of said lead frame is placed in said cavity;

pressing down said second mold die for tightly contacting said spherical terminal with the inner side of said cavity; and

injecting a molding composition between said first and second mold dies.